VHF/UHF DUAL BAND FM RADIOAMATEUR HANDPORTABLE TRANSCEIVER

"With FM radio receiver incorporated"

USER'S MANUAL

DYNASCAN
DB-93M

CE 0700 ⓘ

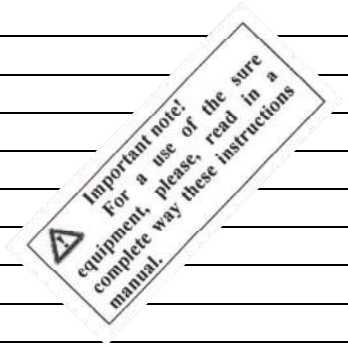
For the use this equipment, it is administrative authorization necessary or licenses granted by the Telecommunication Authorities. Restrictions can exist for their use in any EU country, for more information it consults with their distributor or salesperson.

This equipment is marked with the symbol of the selective relative classification to the waste of electric and electronic equipments. This means that this product should be retired mediating for an European system of selective collection according to the European Directive 2012/19/EU either with the purpose of being able to be recycled or dismantled to reduce any impact in the environment. For more information, it can contact with their distributor, salesperson or their local or regional administration.
The electronic products that have not been object of a selective collection are potentially dangerous for the environment and the public health due to the possible presence of dangerous substances.

RoHS

INDEX 1 of 2

		Page no.
1.-	**INTRODUCTION**	**4**
2.-	**MAINTENANCE AND SAFETY CAUTIONS**	**5**
3.-	**SUPPLIED ARTICLES AND OPTIONAL ACCESSORIES**	**6**
	3.1.- SUPPLIED ARTICLES	6
	3.2.- OPTIONAL ACCESSORIES	6
4.-	**CHARACTERISTICS**	**6**
5.-	**TECHNICAL SPECIFICATIONS**	**7**
	5.1.- GENERAL	7
	5.2.- TRANSMITTER	7
	5.3.- RECEIVER	7
6.-	**TRANSCEIVER DESCRIPTION**	**8**
	6.1.- CONTROLS, KEYS AND CONNECTORS	8
	6.2.- LCD DISPLAY	9
7.-	**INITIAL PREPARATIONS**	**9**
	7.1.- INSTALL THE ANTENNA	9
	7.2.- INSTALL THE BATTERY	9
	7.3.- REMOVE THE BATTERY	9
	7.4.- INSTALL AND REMOVE THE BELT CLIP	10
	7.5.- INSTALL THE EXTERNAL MICROHEADSET (OPTIONAL)	10
	7.6.- BATTERY CHARGING	10
8.-	**OPERATION**	**10**
	8.1.- TURN ON/OFF THE TRANSCEIVER	10
	8.2.- VOLUME ADJUST	10
	8.3.- TRANSMITTING/RECEIVING	10
	8.4.- ALARM FUNCTION	11
	8.5.- EMERGENCY CHANNEL	11
	8.6.- REVERSE FREQUENCY FUNCTION	11
	8.7.- SCANNING	11
	8.8.- SELECT SCAN TYPE	11
	8.9.- OPERATION MODE SELECTION	12
	8.10.- FM RADIO	12
	8.11.- SIDE KEYS DEFINITION	12
	8.12.- “DTMF” ENCODE AND DECODE	12
	8.13.- SIDE KEYS	13
	8.14.- “DTMF/MSK/5-TONE” OPERATION	13
	8.15.- “ANI” FUNCTION	13
	8.16.- STORE	14
	8.17.- EMERGENCY CALL CHANNEL STORAGE	14
	8.18.- DELETE A CHANNEL	14
9.-	**SHORTCUTS OPERATION**	**14**
10.-	**MENU OPERATION**	**15**
11.-	**ADVANCED OPERATIONS**	**16**
	11.1.- SCANNING	16
	11.2.- PRIORITY CHANNEL SCAN	16
	11.3.- “VOX” FUNCTION SETTING	16
	11.4.- SETTING THE TRANSMISSION POWER	16



Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

INDEX 2 of 2

	Page no.
11.5.- SETTING SQUELCH	16
11.6.- "SCRAMBLER" FUNCTION	17
11.7.- BACKLIGHT COLOR SELECTION	17
11.8- "BEEP" ON/OFF	17
11.9.- VOICE PROMPT	17
11.10- "ANI" FUNCTION	18
11.11.- KEYPAD LOCK	18
11.12.- TIME OUT TIMER "TOT"	18
11.13.- SCAN TYPE SELECTION	18
11.14.- WIDE AND NARROW BAND SELECTION	19
11.15.- REPEATER SHIFT	19
11.16.- REPEATER SHIFT ADJUSTMENT	19
11.17.- SELECT "CTCSS" AND "DCS" ON TRANSMITTING AND RECEIVING	19
11.18.- SELECT "CTCSS" AND "DCS" ON RECEIVING	19
11.19.- SELECT "CTCSS" AND "DCS" ON TRANSMITTING	20
11.20.- SELECT THE FREQUENCY STEP	20
11.21.- "CTCSS" SCAN	20
11.22.- "DCS" SCAN	20
11.23.- BACKLIGHT ON/OFF	20
11.24.- END ROGER ALERT	20
11.25.- FM RADIO AND MONITOR TWO WAY RADIO SIGNAL	21
11.26.- KEYPAD LOCK	21
11.27.- BATTERY SAVE FUNCTION	21
11.28.- A/B CHANNEL VOLUME ADJUSTMENT	21
11.29.- SETTING TRANSMITTING CHANNEL WHEN IN THE STATUS OF DUAL STANDBY	21
11.30.- CROSS-BAND REPEATER MODE	22
11.31.- DUPLEX MODE	22
11.32.- SCAN ADD CHANNELS	22
11.33.- CHANNEL NAME EDIT	23
12.- "CTCSS" TABLE	**23**
13.- "DCS" TABLE	**23**
14.- TROUBLESHOOTING	**24**
15.- DECLARATION OF CONFORMITY	**25**
16.- GUARANTEE	**26**

Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

1.- INTRODUCTION:

• Our Company he thanks him for the trust deposited in this product, we are convinced that it will be highly pleased with the quality and operation functions of this equipment.
• This radio equipment has been designed and manufactured for users that specify a equipment of communication of easy handling, of the highest quality and yield besides an excellent reliability.
• The transceiver that he has just acquired has been manufactured of agreement with a strict quality control of the manufacturing company.
• This equipment is given in a packing that muffles the blows and vibrations of the transport, guaranteeing this way an excellent state in the acquisition moment.
• After remove the packing, verify that the equipment or their accessories are not damaged. In the event of doubt it doesn't use and contact the Technical Service or salesperson.
• The packing materials (plastic bags, etc.), they should not be left within reach of the children, since they are a potential danger source.
• The manufacturer and the importer decline any responsibility for derived damages of an inadequate, incorrect or imprudent use of the equipment.
• Read in a complete way this manual in order to avoiding damages in the equipment or incorrect manipulations.
• It is important to stress that some of the functions of the equipment are explained in relation to information given in remote or previous chapters, if you only read some concrete parts of this manual, he will take a risk to not understanding the complete explanation of the functions of those that it prepares the equipment.
• Attention to the notes included in the sections squares shady.
• Make sure of understanding all the indications of this manual correctly.
• Keep this manual for future consults.
• The equipment reparations or internal adjustments should always be carried out in a Technical Authorized Service.
• Equipment internal manipulation, alteration or change of the technical characteristics performed by personal unaware to the Technical Service, it invalidates the guarantee.
• This equipment has come out of the distributor's warehouses under technical use conditions adapted to the effective country legislation of use this transceiver. To change this characteristics, to carry out internal adjustments or not authorized modifications can take to an illegal use of the equipment constituting an infraction sanction as well as to generate interferences that can harm to other legally established communications.
• Verify that the equipment is programmed correctly, being adjusted to the requirements in the use country.
• If this transceiver is used without license or authorization necessary, is infringed legislation and it is incurred in legal responsibilities. In such a case, it should consult to the authorities of Telecommunication or their distributor or salesperson to be informed of the obligations before the use of this transceiver.
This transceiver requires of license for its use and it is dedicated to be used in the following EU countries.

AT	BE	DK	FI	FR	DE	GR	IS
IE	IT	LI	LU	NL	NO	PT	SP
SE	CH	GB	CY	CZ	EE	HU	LV
LT	MT	PL	SK	SI	BG	RO	

• The inadequate use of this equipment is the proprietor's of the same one exclusive responsibility.

Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

WARNING!
- The transceiver operation can be prohibited in certain places or enclosures, follow the use restrictions.
- Before using this transceiver, obtain the necessary authorization administrative or license.
- Follow the requirements of your country in the use of Radioamateur transceiver.
- This equipment is not changeable in its technical specifications by means of the keyboard use, being necessary the physical equipment opening and the changing the electronic components for the technical characteristics alteration.

2.- MAINTENANCE AND SAFETY CAUTIONS:

• Only use this equipment for the end that this has been manufactured. The manufacturer and the salesperson won't accept any responsibility and the guarantee will invalidity in the event of inadequate use of the transceiver.
• This equipment doesn't have components that the user can repair. Always consult to the Authorized Technical Service for any repair.
• It should not turn ON/OFF the transceiver connecting and disconnecting the battery. Always use the ON/OFF control.
• Install the battery correctly, the antenna and the accessories (optional), according to the indications given in this manual.
• Avoid touch the antenna with the hand or with any part of the body when the equipment is transmitting.
• In the event malfunction of the equipment or their battery charger (scent to burnt, smoke, etc.), turn off it immediately, disconnect the battery charger of the 230 VAC wall outlet and consult to the Technical Service.
• Don't introduce any object for the grooves of the speaker or for the connectors of the equipment.
• If it uses an external (optional) headphone, reduce to the possible maximum volume level, avoid volume levels very high.
• Don't expose the equipment or the battery charger to the rain, directly sunlight for an extended period of time, not place near a heat source (radiators, etc.) to blows, to the powder excess or dirt, to the fire, to explosive or another type of dangerous conditions.
• Avoid the humidity condensation. The air humidity is deposited in the transceiver when place of a cold atmosphere to other warm, making that the equipment doesn't work correctly. If condensation takes place in the equipment, clean a dry cloth and wait to that dries off to light it.
• Don't place anything on the transceiver that can spill out on the same one.
• If the transceiver caused interferences in the video recorder, DVD, radio and television receiver, or to any other electronic apparatus, take it away from the apparatus in question.
• Don't operate this transceiver while it is driving a vehicle, use hands free systems and respect the traffic police indications.
• Turn off and do not use the equipment in areas where their use is restricted or prohibited (e.g. coal gas , areas with explosion atmosphere, areas where it can interference the operation of other equipments, on board airships, airports, etc.).
• Don't use this transceiver in the vicinity of other electronic equipments, especially next to medical equipments. It can cause interferences in other equipments.
• To clean the equipment and the battery charger being turn off and with an antistatic cloth (preferably) or a humid (not wet) cloth.
• Don't pulverize directly with any liquid or product on the transceiver or battery charger and never use for their cleaning polish home products, detergents, alcohol or solvent.
• Don’t use for the cleaning a dry cloth, it could cause static sock.
• The not compatible accessories used with the transceiver they could limit the operation of the transceiver, and even to damages invalidating the guarantee.
• Explosion risk if it replaces the battery for an incompatible one.
• As general safety cautions, the children should not operate any type of electric equipments.

Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

WARNING!
- The user is the responsible one of providing the enough protection during a thunderstorm uses the transceiver with an external antenna in a vehicle, or it uses it in a housing like a fixed station and it installs the antenna outdoors in a high location. Keep in mind that any antenna outdoors believes a direct trajectory for the discharge from a ray (on 10 kA) to the transceiver. This trajectory even still exists with the "OFF" transceiver.
- Any vehicle doesn't present a sure environment during a thunderstorm. This is very dangerous when the antenna is installed in the external high vehicle. Remove the antenna and their cable in the next vision of a thunderstorm.

3.- SUPPLIED ARTICLES AND OPTIONAL ACCESSORIES:

3.1.- SUPPLIED ARTICLES:

Carefully unpack the transceiver. We recommend that you identify the items listed in the following table. If any items are missing or have been damaged, consult with yor distributor or salesperson.

ITEMS	QUANTITY
Handportable transceiver	1
Antenna	1
Li-Ion battery	1
AC/DC adapter	1
Top table battery charger	1
Belt clip	1
User´s manual	1

Note:
- The articles supplied in the packing, it can differ of those enumerated in the previous chart depending on the transceiver acquisition country. For more information, consult with their distributor or salesperson.

3.2.- OPTIONAL ACCESSORIES:

ITEMS
External earphone
External micro-headset
External microphone
Vehicle battery charger
Leather case

Note:
- Consult with their distributor or salesperson to be informed on the optional available accessories.

4.- CHARACTERISTICS:

- VHF 5 W and VHF 4 W output power.
- Up to 128 groups of memory channels.
- Dot matrix dual displays.
- Automatic Numbering Identification "ANI" code.
- Built-in Voice Operate Transmit (VOX) function, programmable.
- "CTCSS/DCS/5 Tone/MSK/DTMF" tone, programmables.
- All channels scan and priority channel scan.
- "Scrambler" function, optional.
- Cross-band repeater function.

Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

- "Duplex" function.
- Self-setting "CTCSS/DCS".
- FM RADIO receiving.
- Independent "A" band and "B" band operation setting.

5.- TECHNICAL SPECIFICATIONS:

5.1.- GENERAL:

Frequency range:	76 MHz – 108 MHz (FM radio receiver only). VHF: 144 MHz - 146 MHz (Rx/Tx). UHF: 430 MHz - 440 MHz (Rx/Tx).
Working temperature:	-20 ºC to +60 ºC.
Operating voltage:	Li-Ion battery 7.4 V.
Operating mode:	Simplex, semi-duplex or duplex.
Antenna impedance:	50 Ω.
Frequency stability:	±2.5 ppm.
Dimensions:	115 mm x 57 mm x 30 mm (whitout antenna).
Weight:	223 gr (with battery).
Dutty cycle:	3-3-54 minutes (Rx/Tx/Standby).

5.2.- TRANSMITTER:

RF output power:	5W (VHF) and 4 W (UHF).
Modulation type:	F3E (FM).
Maximum deviation:	≤±5 kHz.
Distortion:	≤5 %.
Adjacent channel power:	≥65 dB.
Spurious emissions:	≤7.5 µW.

5.3.- RECEIVER:

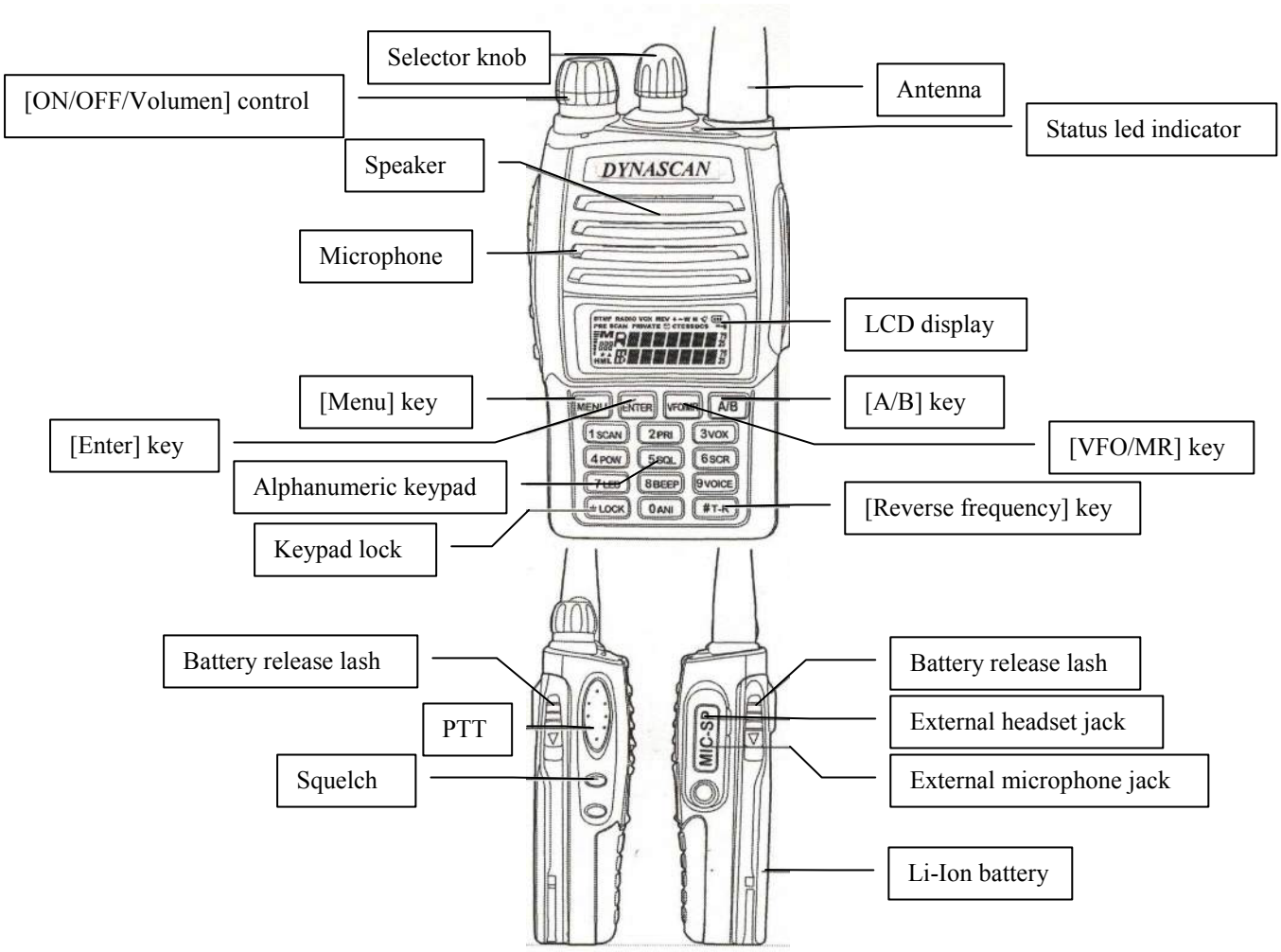
Sensitivity:	<0.2 µV (12 dB SINAD).
Audio distortion:	≤5 %.
Adjacent channel selectivity:	≥60 dB.
Intermodulation rejection:	≥60 dB.
Sporious radiations:	≥60 dB.
Blocking:	≥80 dB.

Note:
- This equipment is not modifiable in its technical specifications by means of the use of the keyboard, being necessary the physical opening of the equipment and the alteration of its electronic components for the modification of its technical characteristics.

Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

6.- TRANSCEIVER DESCRIPTION:

6.1.- CONTROLS, KEYS AND CONNECTORS:

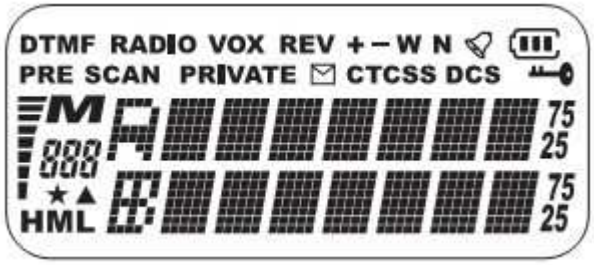


[ON/OFF/Volume] control	To turn ON/OFF the transceiver and adjust the volume level.
Status led indicator.	When the [PTT] is pressed, the status led indicator will be illuminated in red color to indicate the transmitting status.
Busying indicator.	When receiving a signal, the display show the signal strength.
[PTT]	Press and hold to transmit.
[VFO/MR]	To exit the menu or other function.

Connectors:

"SMA" connector.	For antenna installation.
[MIC-SP] jack.	If you want to use a headset or a microphone, connect them to this socket. If not, prevent water or dirt from dropping into it.

6.2.- LCD DISPLAY:



Icon	Description
	Battery level indicator.
+/-	Shows the TX offset direction in relation to the Rx frequency.
HI/LO	Power level indicator, “HI” = High power / “LO” = Low power.
	Keypad lock.
DCS	“DCS” code is turned on.
CTCSS	“CTCSS” tone is turned on.
VOX	“VOX” function turned on.
	Call function.
REV	Reverse frequency activated.
PRE	Priority scan activated.
	Received signal strength and TX power.
	Working frequency.
888	Menu.
★	Priority channel.
CAL	Call channel.

7.- INITIAL PREPARATIONS:

7.1.- INSTALL THE ANTENNA:

To install the antenna, insert into the “SMA” connector and rotate it clockwise until the end.

Note:
- Don't hold the antenna with the hand or don't wind the external microheadset (optional) to her to avoid a bad transceiver performance.

7.2.- INSTALL THE BATTERY:

Install the battery in the later side of the transceiver inserting it in the down grooves and pressing it of the up side against the transceiver until listening a “click”.

7.3.- REMOVE THE BATTERY:

To remove the battery, slip the two battery lash of the battery.

7.4.- INSTALL AND REMOVE THE BELT CLIP:

Place the belt clip for slipping it for the grooves of the battery rear side until the end.
To remove the belt clip, liberate the retention lash of the belt clip and slip it until he separates to the battery.

Note:
- Do not use any glue to fix the belt clip, it will damage the belt clip and the battery case.

7.5.- INSTALL THE EXTERNAL MICROHEADSET (OPTIONAL):

Remove the rubber cover and install the optional microheadset connecting it to the transceiver "MIC-SP" jack.

7.6.- BATTERY CHARGING:

The battery pack is not fully charger when manufacturer, and charge it before first use.
The battery can not reach the normal capacity for the first time charging after purchasing or storing it more than two months. However, it will return the normal capacity after charging and discharging repeatedly 3-5 times.
To battery charging process:
1.- Insert the AC/DC adapter jack to the connector of top battery charger.
2.- Connect the AC/DC adaptor to the 230 VAC wall outlet.
3.- Put the Li-Ion battery or the turn off transceiver with the battery, on the desk top.

Notes:
- Make sure the battery connect with the touching piece of the charging terminal.
- The led indicator red illuminates, indicates that the Li-Ion battery is in charging procedure.
- The led indicator green illuminates, indicates that the Li-Ion battery is fully charging. Charge the battery in power off mode transceiver.
- Do not short circuit the Li-Ion battery terminals.
- Do not dispose the Li-Iom battery in fire.
- Do not disassemble the case of the Li-Ion battery.

8.- <u>OPERATION:</u>

8.1.-TURN ON/OFF THE TRANSCEIVER:

Rotate the [ON/OFF/Volume] knob clockwise until a beep sound is heard. All icons appeared on the screen.
To turn off the transceiver, rotate the [ON/OFF/Volume] knob counter-clockwise. All the icons on the display will disappear and the transceiver is off.

8.2.- VOLUME AJUST:

Rotate the [ON/OFF/Volume] knob clockwise to increase the volume and counter-clockwise to decrease.

8.3.- TRANSMITTING/RECEIVING:

Firstly, hold down briefly the [Squelch] key to make sure that the channel or frequency is not busy and then press and hold the [PTT] key. Speak 4/10cm far from the unit..
The status led indicator will be illuminated in red color.
Release the [PTT] key to receive.

Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

8.4.- ALARM FUNCTION:

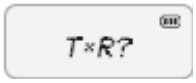
Hold down the programmed side key with this function, the transceiver will sound alarm tone and send "ANI" identification code to others transceiver of their group.

8.5.- EMERGENCY CHANNEL:

Press the [#T-R] key, in any case the transceiver can call up the emergency call channel, and the display shows "CAL".

8.6.- REVERSE FREQUENCY FUNCTION:

This function is possible only when you are linked to a repeater. It permits to invert the TX frequency with the RX frequency.
In channel/frequency mode, hold down the [#T-R] key for two seconds until "T*R" appears on the display.



The display shows the "REV" icon. Repeat the same procedure to return to the normal mode operation.

8.7.- SCANNING:

The scan function is very useful to monitor the channels before transmitting.

1.- Scan channels or frequency:
In channel/frequency mode, press the [MENU] + [1SCAN] key, and then press the [ENTER] key to start the scan from the channel or frequency in use. Whenever any signal is detected, the transceiver will suspend the scan for 5 seconds. The transceiver will then continue to scan unless you press the [PTT] or [ENTER] key to end scanning.

2.- Priority channel scan:
Priority scan is to scan the priority channel firstly and then scan other channel, if you set priority channel 1, it will scan 1-2; 1-3; 1-4; and continue. In channel mode, press the [MENU] + [2PRI] key, and then press the [ENTER] key to scan the priority channel. The transceiver begin to scan priority channel. When any signal is detected, the transceiver will suspend the scan for 5 seconds. It will then continue to scan unless you press the [PTT] or [ENTER] key to end scanning.

3.- Subtone scan:
In the frequency mode, press the [MENU] key and rotary the selector knob to select the "021 CTC • S?" menu or the "022 DCS.S?" menu. Then press the [ENTER] key to enter the "CTCSS" (50 groups) scan or "DCS" (105 groups). When the transceiver scan to the same subtone or code, open the "Squelch" and exit scan.

8.8.- SELECT SCAN TYPE:

Press the [MENU] key and rotate the selector knob until the display shows "013 SCANS". Press the [ENTER] key and turn the selector knob again to select the scan type "TO/CO/SE".

- TO: Even though the transceiver stops on a busy channel or frequency and it will continue scanning the other channels or frequency.
- CO: The transceiver stops on a busy channel or frequency until there is no activity, and then the transceiver begins scanning the other channels.

Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

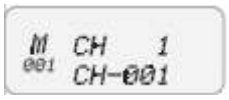
- SE: The transceiver stops on a busy channel or frequency and exits the scan mode.

8.9.- OPERATION MODE SELECTION:

This transceiver has three modes to choose from: Double-standby, channel mode and frequency mode.

1.- Double-standby mode:
Long press the [A/B] key to enter or exit the double-standby mode. In double-standby mode, there will be two channel A or B instructions. When “A” is displayed, the channel can receive and transmit, while the other channel can only receive. When “B” is displayed, the channel can receive and transmit, another channel can only receive. Short press the [A/B] key to switch “A” or “B”.

2.- Channel mode:
Press the [VFO/MR] key to switch channel mode or frequency mode .
1) Display the name of the current channel and channel number.



CH 1: Indicates that the current name of the channel, the user can edit it.
CH-001: Current channel number.

2) Display the channel number and frequency:
CH 1: Indicates the current channel, the user can edit the name.
430.700: Indicates the frequency of the current channel.
3) The receiver frequency and transmit frequency on the current channel:
R430.700: Indicates receiving frequency on the current channel.
T430.700: Indicates transmitting frequency on the current channel.

3.- Frequency mode:
R433.700: Indicates the receiving frequency.
T433.700: Indicated the transmitting frequency.
The difference between channel mode and frequency mode is whether the left side LCD displays M 001.

8.10.- FM RADIO:

Press the [MENU] + side key 2 to enter into the FM radio state, press the number keys or turn the selector knob to select the radio frequency. Press the [*LOCK] key or the [#T-R] key to search the broadcast station. Press the [MENU] + side key 2 to exit the FM radio mode.

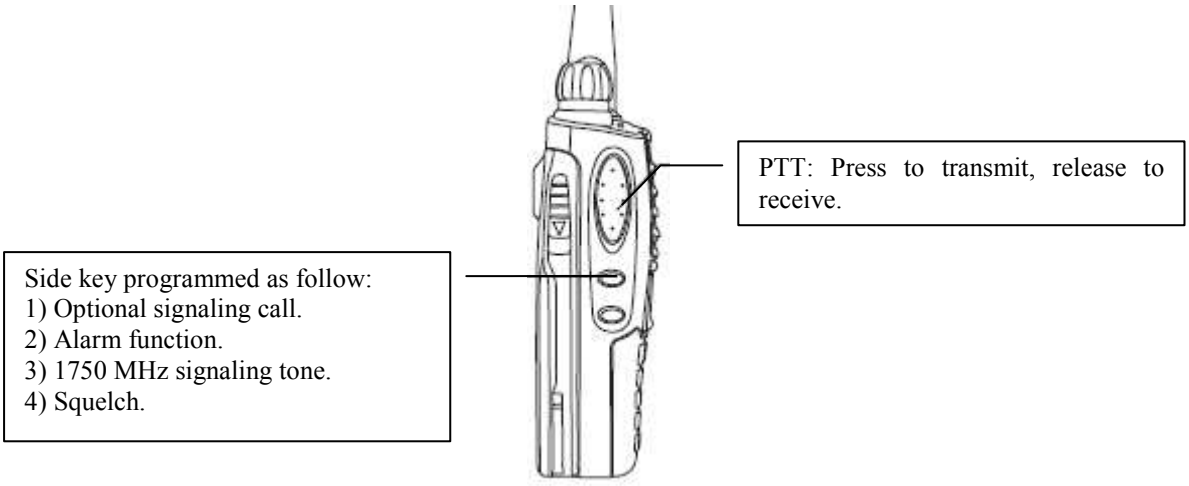
8.11.- SIDE KEYS DEFINITION:

You distributor or salesperson will program in the side key 2 as follows: 1) Optional signaling call; 2) Emergency alarm; 3) 1750 Hz tone signaling; 4) Instantaneous squelch.

8.12.- “DTMF” ENCODE AND DECODE:

This transceiver can transmit and receive “DTMF” tones. In channel mode, press the [PTT] key and enter the number on the keyboard, the corresponding “DTMF” code would be send out. “DTMF” code corresponding function keys issued as follows:

8.13- SIDE KEYS:


PTT: Press to transmit, release to receive.
Side key programmed as follow:
1) Optional signaling call.
2) Alarm function.
3) 1750 MHz signaling tone.
4) Squelch.

8.14.- "DTMF/MSK/5-TONE" OPERATION:

Use "DTMF/5-Tone" to achieve selective calling, stun and disstun functions. Your distibutor or salesperson will program the "DTMF/5-Tone" and the "ID code", thet it will allow TX stun , cancel TX stun, Rx/Tx stun, cancel Rx/Tx stun, etc. Defined side key as optional signaling call, and select the "DTMF" or "5-Tone" as optional signaling on the channel, press the defined side key until display shows "CALL?", enter the "ID" code directly or input the number stored and press the [PTT] key to transmit

If you make a mistake or want to cancel calling, rotate the selector knobr counter-clockwise to delete it one by one. Rotate clockwise to exit.

■ **"5-Tone" encode/decode:**

1) "5-Tone" call: Use side key for optional signaling "5-Tone" call, or press the [MENU] key, the display shows the "5-T", then input the selective call/stun/disstun code, press the [PTT] key to make a call.

2) "5-Tone" signaling encode: Up to 9 groups can be set by the distributor or salesperson.

■ **"DTMF" call:**

Use "DTMF" to achieve selective calling, group calling and all calling function.

"DTMF" selective call, group call, all call function is set by the distributor or salesperson.

■ **"MSK" encode/decode:**

"MSK" codec set by the distributor or salesperson, a total of 9 groups and you can enter: 0-9, A-F. Each group can be set to 4 digits.

"MSK" call: Use side key for optional signaling "MSK" call or press the [MENU] key until the display shows "MSK In", enter the "ID" code and press the [PTT] key to make a call.

8.15.- "ANI" FUNCTION:

There are three methods to transmit "ANI" code: 1) Before transmitting, 2) After transmitting, 3) Before and after transmitting.

Three signaling to choose from: "MSK", "DTMF", "5-Tone", select the type of signaling formats, decoding "ID" must also be same.

Your distributor or salesperson will program the above information. Use shortcuts [MENU] +

Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

[0ANI] key to turned on or off the "ANI" function.

8.16.- STORE:

To store a frquency and its settings (CTCSS, DCS, SHIFT REPEATERS, etc.) follow the procedure below:
1.- At first, choose all the settings to store.
2.- Press the [MENU] key.
3.- Then, press the [VFO/MR] key.
4.- Rotate the selector knob and select the memory number where you want to store the frequency and its settings.
5.- Confirm your selection by pressing the [VFO/MR] key.

Note:
- A triangle displayed underneath the channel number indicates that it has already been stored.

8.17.- EMERGENCY CALL CHANNEL STORAGE:

Select the necessary frequency for emergency call, press the [MENU] + [VFO/MR] + [#T-R] key, the screen displays the word "CAL". "CAL" character flashes if the emergency call channel have been stored, you can press the [VFO/MR] key to overwrite the channel.

8.18.- DELETE A CHANNEL:

1.- Delete one store channel:
In channel mode, turn off the transceiver.
Press and hold the [VFO/MR] key, turn on the unit. "001DEL?" and stored channel number will be displayed. Turn the selector knob or select by keypad the channel to delete. Push the [ENTER] key, "YES?" appears on the display. Press the [ENTER] key again to confirm.

2.- Reset (Delete all the settings in frequency mode):
Press and hold the [MENU] key and turn on the transceiver, "RESET?" is displayed. Press the [ENTER] key, "VFO?" is shown on the display. Press the [ENTER] key again for confirmation.

3.- Delete all settings (Delete the settings in both frequency and channel mode):
Press and hold the [MENU] key and turn on the transceiver, "RESET?" is displayed. Press the [ENTER] key, "VFO?" is show on thw display. Turn the selector knob to select "FULL?", then press the [ENTER] key to delete all the settings in frequency and channel mode.

9.- <u>SHORTCUTS OPERATION:</u>

[MENU] + [0ANI] + [ENTER]: The "ANI" code selection.
[MENU] + [1SCAN] + [ENTER]: Scan mode.
[MENU] + [2PRI] + [ENTER]: Priority channel scan mode.
[MENU] + [3VOX] + [ENTER]: "VOX" sensitivity setting.
[MENU] + [4POW] + [ENTER]: Transmitting power setting.
[MENU] + [5SQL] + [ENTER]: Squelch setting.
[MENU] + [6SCR] + [ENTER]: Scrambler on/off setting.
[MENU] + [7LED] + [ENTER]: Backlight color setting.
[MENU] + [8BEEP] + [ENTER]: Beep tone setting.

[MENU] + [9VOICE] + [ENTER]: Voice annunciation on/off.
[MENU] + [#T-R] + [ENTER]: Transmitting/receiving "CTCSS/DCS" setting.
[MENU] + [*LOCK] + [ENTER]: Repeater shift setting.

10.- MENU OPERATION:

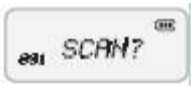
To operate with all the settings of the menu, you have to follow these general steps:
1.- Press the [MENU] key.
2.- Turn the selector knob or input keypad number to select the desired menu.
3.- Press the [ENTER] key and turn the selector knob to choose the desired settings.
4.- Press the [ENTER] key to confirm.

Menu no.	Menu content	Description
1	SCAN (Channel scan).	All channel scan.
2	PRI (Priority channel scan).	Priority channel scan.
3	VOX ("VOX" sensitivity).	OFF~9.
4	POW (Transmit power).	HIGH/LOW.
5	SQL (Squelch setting).	0~9 level.
6	SCRM (Scrambler).	OFF/1~8 groups scrambler.
7	LIGHT (Backlight color).	1/2/3.
8	BEEP ("Beep" tone).	ON/OFF.
9	VOICE (Voice prompt).	OFF/English/…..
10	ANI ("ANI" code).	OFF/BOT/EOT/BOTH.
11	KEYBO (Keypad lock).	MANUAL/AUTO.
12	TOT (Time out timer).	OFF~270.
13	SCANS (Scan selection).	CO/TO/SE.
14	N/W (Narrow/Wide band).	WIDE/NARROW.
15	SHIFT (Repeater shift).	+/-/0.
16	OFFSET (Frequency repeater offset).	0~2.000 (VHF). 0~10.000 (UHF).
17	C-CDC (Receive/Transmit CTCSS/DCS)	OFF~254.1/D023~D754.
18	R-CDC (Receive CTCSS/DCS).	OFF~254.1/D023~D754.
19	T-CDC (Transmit CTCSS/DCS).	OFF~254.1/D023~D754.
20	STEP (Frequency step).	2.5K/5K/10K/6.25K/12.5K/25K/50K/100K.
21	CTC.S (CTCSS scan).	CTCSS scan.
22	DCS.S (DCS scan).	DCS scan.
23	LED (Backlight setting).	OFF/ON/AUTO.
24	ROGER (Transmission tail tone).	OFF/1~10.
25	DW (Listen FM radio and monitor transceiver status).	OFF/ON.
26	LOCK (Locking mode).	K+S/PTT/KEY/ALL.
27	SAVE (Battery save).	OFF/ON.
28	VOLUME (Volume adjust).	0~15 levels.
29	TX.SEL (TX respond select).	FIXED/CALLIN.
30	RPT (Repeater mode).	OFF/ON.
31	DUPLEX (Duplex mode).	OFF/ON.
32	SADD (Scan add).	ADD/DEL.
33	NAME (Channel name).	----------
1~28 menu, is available in frequency mode operation only. 29~33 menu, is available in dual frequency/dual receive mode operation only. 32~33 menu, is available en channel mode operation only.		

11.- ADVANCED OPERATIONS:

11.1.- SCANNING:

Press the [MENU] key.
Turn the selector knob until the display shows “SCAN” (menu 001).
Press the [ENTER] key.
Press the [VFO/MR] to stop scanning and exit.



11.2.- PRIORITY CHANNEL SCAN:

In channel mode, press the [MENU] key.
Turn the selector knob until the display shows “PRI” (menu 002).
Press the [ENTER] key.
Press the [VFO/MR] key to exit.

11.3.- “VOX” FUNCTION SETTING:

The “VOX” function is deactivated by default. To activate this function, it follow the procedure here below:
1.- Press the [MENU] key.
2.- Turn the selector knob until the display shows “VOX” (menu 003).
3.- Press the [ENTER] key.
4.- Turn again the selector knob and select the desired “VOX” level (you can choose amongst 9 different levels).
5.- Press the [ENTER] key again.
6.- Press the [VFO/MR] key to exit.
To activate and select rapidly the “VOX” function, you can do it also by operating on the fast menu. Press the [MENU] key, then press the [3VOX] key and follow the procedure above described.

11.4.- SETTING THE TRANSMISSION POWER:

To select desired power level:
1.- Press the [MENU] key.
2.- Turn the selector knob until the display shows “POW” (menu 004).
3.- Press the [ENTER] key.
4.- Turn again the selector knob and select the desired power level (you can choose between 2 levels, “H” hight and “L” low).
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.
To activate and select rapidly the power level, you can also use the fast menu. Press the [MENU] key, then press the [4POW] and follow the procedure above described.

11.5.- SETTING SQUELCH:

To select the squelch level:
1.-Press the [MENU] key.
2.- Turn the selector knob until “SQL” (menu 005) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob and select the desired squelch level (9 different levels are available).
5.- Press the [ENTER] key.

6.- Press the [VFO/MR] key to exit.
To activate and select rapidly the squelch level, you can also use the fast menu. Press the [MENU] key, then press the [5SQL] key and follow the procedure above described.

11.6.- "SCRAMBLER" FUNCTION:

To turn on/off the scrambler function, follow this procedure:
1.- Press the [MENU] key.
2.- Turn the selector knob until "SCRM" (menu 006) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to select 1-8 group scrambler or set it "OFF".
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.
To select "Scrambler" function rapidly, you can also use the fast menu. Press the [MENU] key, then press the [6SCR] key and follow the procedure above described.

Note:
- The "Scrambler" function will be automatically "OFF" if menu 31 "DUPLEX" was set "ON".

11.7.- BACKLIGHT COLOR SELECTION:

To select the LCD backlight color, follow this procedure:
1.- Press the [MENU] key.
2.- Turn the selector knob until "LIGHT" (menu 007) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to select 3 different color: Blue, orange and purple.
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.
To select rapidly the backlight color, you can also use the fast menu. Press the [MENU] key, then press the [7LED] key and follow the procedure above described.

11.8.- "BEEP" ON/OFF:

The keypad "beep" is activated by default. To deactivate it:
1.- Press the [MENU] key.
2.- Turn the selector knob until "BEEP" (menu 008) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to activate/deactivate the "beep" (ON = "beep" enabled; OFF = "beep" disabled).
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.
To activate/deactivate rapidly the keypad "beep", you can use the fast menu. Press the [MENU] key, then press the [8BEEP] key and follow the procedure above described.

11.9.- VOICE PROMPT:

With this function, you activate a voice that informs about any operation/selection you are doing in your transceiver. To activate this function, follow these steps:.
1.- Press the [MENU] key.
2.- Rotate the selector knob until "VOICE" (menu 009) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to disable or select the desired language.

Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

5.- Press the [ENTER] key again.
6.- Press the [VFO/MR] key to exit.
To select rapidly this function, you can also use the fast menu. Press the [MENU] key, then press the [9VOICE] and follow the procedure above described.

11.10.- "ANI" FUNCTION:

You can set an automatic number identifier visible from the transceiver's display of your partner each time you send a call signal.
To activate this function, follow these steps:
1.- Press the [MENU] key.
2.- Turn the selector knob until "ANI" (menu 10) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to select "OFF", "BOT", "EOT" or "BOTH".
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.
To quickly select this function, you can also use the fast menu. Press the [MENU] key, then press the [0ANI] and follow the procedure above described.

11.11.- KEYPAD LOCK:

To lock the keypad to prevent the wrong operation:
1.- Press the [MENU] key.
2.- Turn the selector knob until "KEYBO" (menu 011) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to select "AUTO", "MANUAL".
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.
To unlock, it press and hold the [#T-R] key for 2 seconds.

11.12.- TIME OUT TIMER "TOT":

To prevent continuous emission of the transceiver, the transceiver can be set of 30-270 seconds continuous emission limits, a warning tone will be hear in the due time.

1.- Press the [MENU] key.
2.- Turn the selector knob until "TOT" (menu 012) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to select from "OFF, 30, 60, 90, 120, 150, 180, 210, 240, 270".
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

11.13.- SCAN TYPE SELECTION:

1.- Press the [MENU] key.
2.- Turn the selector knob until "SCANS" (menu 013) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to select from "TO, CO, SE".
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

11.14.- WIDE AND NARROW BAND SELECTION:

1.- Press the [MENU] key.
2.- Turn the selector knob until “N/W” (menu 014) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to select from “NARROW or WIDE”.
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

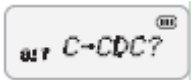
11.15.- REPEATER SHIFT:

This function is used for communications through repeater.
To activate this function, follow these steps:
1.- Press the [MENU] key.
2.- Turn the selector knob until “SHIFT” (menu 015) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob and select the repeater shift. You can choose amongst the following options “+”, “-” and “0”.
5.- Press the [ENTER] key again.
6.- Press the [VFO/MR] key to exit.
To select the repeater shift, you can also use the fast menu. Press the [MENU] key, then press the [*LOCK] key and follow the procedure above described.

11.16.- REPEATER SHIFT ADJUSTMENT:

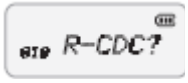
1.- Press the [MENU] key.
2.- Turn the selector knob until “OFFSET” (menu 016) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob and select the repeater shift.
You can also enable it by enter the frequency directly on the keypad
5.- Press the [ENTER].
6.- Press the [VFO/MR] key to exit.

11.17.- SELECT “CTCSS” AND “DCS” ON TRANSMITTING AND RECEIVING:



1.- Press the [MENU] key.
2.- Turn the selector knob until “C-CDC” (menu 017) is displayed.
3.- Press the [ENTER] key.
4.- Rotate the selector knob and select the desired “CTCSS” tone, or press the [*LOCK] key to select “DCS” code. While selecting the “DCS” codes, if you press the [#T-R] key, you will select the normal (N) or inverted (I) “DCS” codes.
5.- Press the [ENTER] to confirm.
You can use keypad or software to input or program a non-standard “CTCSS/DCS”.

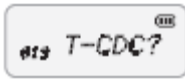
11.18.- SELECT “CTCSS” AND “DCS” ON RECEIVING:



1.- Press the [MENU] key.
2.- Rotate the selector knob until “R-CDC” (menu 018) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob and select the desired “CTCSS” tone, or press the [*LOCK] key to select “DCS” code. While selecting the “DCS” codes, if you press the [#T-R] key, you will select the normal (N) or inverted (I) “DCS” codes.

5.- Press the [ENTER] to confirm.
You can use keypad or software to input or program a non-standard “CTCSS/DCS”.

11.19.- SELECT “CTCSS” AND “DCS” ON TRANSMITTING:



1.- Press the [MENU] key.
2.- Turn the selector knob until “T-CDC” (menu 019) is displayed.
3.- Press the [ENTER] key.
4.- Rotate the selector knob and select the desired “CTCSS” tone, or press the [*LOCK] key to select “DCS” code. While selecting the “DCS” codes, if you press the [#T-R] key, you will select the normal (N) or inverted (I) “DCS” codes.
5.- Press the [ENTER] to confirm.
You can use keypad or software to input or program a non-standard “CTCSS/DCS”.

11.20.- SELECT THE FREQUENCY STEP:

1.- Press the [MENU] key.
2.- Turn the selector knob until “STEP” (menu 020) is displayed.
3.- Press the [ENTER] key.
4.- Rotate the selector knob to select desired frequency step. You can choose amongst: 2.5K, 5K, 10K, 6.25K, 12.5K, 25K, 50K and 100K.
5.- Press the [ENTER] key to confirm.
6.- Press the [VFO/MR] key to exit.

11.21.- “CTCSS” SCAN:

1- Press the [MENU] key.
2.- Rotate the selector knob until “CTC.S” (menu 021) is displayed.
3.- Press the [ENTER] key.
When the transceiver scan match “CTCSS” tone, open the squelch and exit scanning.

11.22.- “DCS” SCAN:

1- Press the [MENU] key.
2.- Rotate the selector knob until “DCS.S” (menu 022) is displayed.
3.- Press the [ENTER] key.
When the transceiver scan match “DCS” code, open the squelch and exit scanning.

11.23.- BACKLIGHT ON/OFF:

To turn on the backlight:
1.- Press the [MENU] key.
2.- Turn the selector knob until “LED” (menu 023) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to select “ON, OFF, AUTO”.
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

11.24.- END ROGER ALERT:

1.- Press the [MENU] key.
2.- Turn the selector knob until “ROGER” (menu 024) is displayed.

3.- Press the [ENTER] key.
4.- Turn the selector knob and select “OFF” or 10 different tones.
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

11.25.- FM RADIO AND MONITOR TWO WAY RADIO SIGNAL:

1.- Press the [MENU] key.
2.- Turn the selector knob until “DW” (menu 025) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob and select “OFF” or “ON” (OFF = disable monitor, ON = enable monitor).
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

11.26.- KEYPAD LOCK:

1.- Press the [MENU] key.
2.- Turn the selector knob until “LOCK” (menu 026) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob and select from “K+S”, “PTT”, “KEY”, “ALL” (“K+S” lock the keypad and knob; “PTT” lock the transmitting key only; “KEY” lock the keypad only; “ALL” lock all keys and knobs).
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

11.27.- BATTERY SAVE FUNCTION:

1.- Press the [MENU] key.
2.- Turn the selector knob until “SAVE” (menu 027) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob and select “OFF” or “ON” (OFF= disable battery save, ON= enable battery save).
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

11.28.- A/B CHANNEL VOLUME ADJUSTMENT:

This function is useful for the dual receiving in A or B channel mode or frequency mode.
1.- Press the [MENU] key.
2.- Turn the selector knob until “VOLUME” (menu 028) is displayed.
3.- Press the [ENTER] key to open the “squelch”.
4.- Turn the selector knob to adjust volume level (0-15).
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.
After adjustment one channel, then you can process for another channel adjustment.

11.29.- SETTING TRANSMITTING CHANNEL WHEN IN THE STATUS OF DUAL STANDBY:

1.- Press the [MENU] key.
2.- Turn the selector knob until “TX.SEL” (menu 029) is displayed.

3.- Press the [ENTER] key.
4.- Turn the selector knob to select “FIXED” or “CALLIN”.
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

“FIXED”: The transceiver always transmit in current channel.
“CALLIN”: In case of there is a single from other channel, the “A” or “B” icon flash 3 seconds. If you press the [PTT], the transceiver will automatically reply to this channel. If not [PTT] pressed after 3seconds flash, the transceiver return to current channel.

11.30.- CROSS-BAND REPEATER MODE:

You can use this transceiver as a repeater, it enable other UHF transceiver to communicate with other VHF transceiver.
1.- Press the [MENU] key.
2.- Turn the selector knob until “RPT” (menu 030) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to select “OFF” or “ON”. (OFF= Repeater disabled, ON= Repeater enabled).
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

Notes:
- This function cannot use for same frequency repeater, the same frequency interfere would damage the transceiver, this means it works with “U-V”, “V-U”, cannot work in “U-U” or “V-V”.
- Don’t use this function for a long time.
- While use this function, battery save function will be deactivated.

11.31.- DUPLEX MODE:

This transceiver can receive single when it was in the status of transmitting. It can to process two communications at the same time.
1.- Press the [MENU] key.
2.- Turn the selector knob until “DUPLEX” (menu 031) is displayed.
3.- Press the [ENTER] key to open the “squelch”.
4.- Turn the selector knob to select “ON” or “OFF”.
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

Note:
- If the function set to “ON”, the menu 06 “Scrambler” function will be deactivated automatically.

11.32.- SCAN ADD CHANNELS:

1.- Press the [MENU] key.
2.- Turn the selector knob until “SADD” (menu 32) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob and select “ADD” or “DEL”. (ADD= Add this channel to scan list. DEL= Remove this channel in scan list).
5.- Press the [ENTER] key.
6.- Press the [VFO/MR] key to exit.

11.33.- CHANNEL NAME EDIT:

1.- Press the [MENU] key.
2.- Turn the selector knob until "NAME" (menu 033) is displayed.
3.- Press the [ENTER] key.
4.- Turn the selector knob to select the wanted character.
5.- Press the [#T-R] key to edit the next character. Press the [*LOCK] key to return last character.
6.- Press the [ENTER] key.
7.- Press the [VFO/MR] key to exit.

12.- "CTCSS" TABLE:

No.	Tone (Hz)	No.	Tone (Hz)	No.	Tone (Hz)	No.	Tone (Hz)	No.	Tone (Hz)
1	67.0	11	94.8	21	131.8	31	171.3	41	203.5
2	69.3	12	97.4	22	136.5	32	173.8	42	206.5
3	71.9	13	100.0	23	141.3	33	177.3	43	210.7
4	74.4	14	103.5	24	146.2	34	179.9	44	218.1
5	77.0	15	107.2	25	151.4	35	183.5	45	225.7
6	79.7	16	110.9	26	156.7	36	186.2	46	229.1
7	82.5	17	114.8	27	159.8	37	189.9	47	233.6
8	85.4	18	118.8	28	162.2	38	192.8	48	241.8
9	88.5	19	123.0	29	165.5	39	196.6	49	250.3
10	91.5	20	127.3	30	167.9	40	199.5	50	254.1

13.- "DCS" TABLE:

No.	Code	No.	Code	No.	Code	No.	Code	No.	Code
1	023	22	131	43	251	64	371	85	532
2	025	23	132	44	252	65	411	86	546
3	026	24	134	45	255	66	412	87	565
4	031	25	143	46	261	67	413	88	606
5	032	26	145	47	263	68	423	89	612
6	036	27	152	48	265	69	431	90	624
7	043	28	155	49	266	70	432	91	627
8	047	29	156	50	271	71	445	92	631
9	051	30	162	51	274	72	446	93	632
10	053	31	165	52	306	73	452	94	654
11	054	32	172	53	311	74	454	95	662
12	065	33	174	54	315	75	455	96	664
13	071	34	205	55	325	76	462	97	703
14	072	35	212	56	331	77	464	98	712
15	073	36	223	57	332	78	465	99	723
16	074	37	225	58	343	79	466	100	731
17	114	38	226	59	346	80	503	101	732
18	115	39	243	60	351	81	506	102	734
19	116	40	244	61	356	82	516	103	743
20	122	41	245	62	364	83	523	104	754
21	125	42	246	63	365	84	526	105	

Παύλος Μεϊμάρης Ελπίδος 34 (ΒΑΟ) Συκιές, Θεσσαλονίκη τηλ 2310.634.513, 6977.38.38.73
URL: http://www.meimaris.com - Email: info@meimaris.com

14.- TROUBLESHOOTING:

If your transceiver has problems, by following this table.

Problem	Cause/solution
Cannont power on the transceiver.	The battery pack has been exhausted, please change for a loaded battery or recharge the battery. The battery pack may be not installed correctly, re-install the battery pack.
The battery used out soon after recharged.	The battery life is over, change a new battery of the same characteristics that the one given with the transceiver. The battery is not fully charged, be make sure fully charged before take out.
The receiving led turn on but no sound into speaker.	Make sure that the volume is the highest. Make sure that the "CTCSS" tone or "DCS" code settings in your transceiver, is the same with other members of their group.
When transmit, unable to talk with other members in the same group.	Check the "CTCSS" tone or "DCS" code settings in your transceiver, is the same with other members of their group. The distance between you and other group members may be too far. You or the other member are in an area of bad propagation of radiofrequency signals.
The keypad do not operate.	Make sure that the keypad locked or not. Make sure any other key is pressed.
In "standby" mode, it will auto-transmit without pressing the [PTT].	Verify that the "VOX" level function is set too low. The "Cross-band repeater mode" is enabled.
Receiver other groups signal while communicating with your group.	Change the frequency or channel. Change another "CTCSS" tones or "DCS" codes of your group.
The communication with other members of your group is poor or of bad quality.	You or other member is too far or in an area of bad radiofrequency propagation, example inside a tunnel, underground parking, in mountain area, among metallic big structures, etc.
Once carried out these confirmations, if it continues the transceiver problems, consult with their distributor, sales person or Technical Service.	

16.- GUARANTEE:

WARRANTY CERTIFICATE

Brand name:	Model:	Serial no.:
Acquirer name:		
Address:		Stamp and name of the establishment sales:
Country:	Postal code:	
Telephone no.:	Date of purchase of the equipment:	
WARNING: The warranty is valid provided it is total and properly executed in a readable and clear way, presents the stamp and name of the establishment sales and has attached the ticket of purchase of the apparatus.		

The suitable equipment presently in this Certificate is warranty by a period of **TWO YEARS** to count from the sale date to the end user according to the Law of warranties in the Sale of Goods of Consumption. This Certificate of warranty is only and nonnegotiable, not being able to be emitted again neither in original neither in copy. The substitution for damage of the equipment or of any piece of the same one it won't imply extension of the warranty.

The warranty covers the substitution and gratuitous reinstatement of all the pieces that present defects in the materials and components employees in the production and/or assembly of the equipment.

The warranty doesn't cover the possible damages caused by accidents, installation and inadequate use, discharge electrics (e.g. lightning's), connection of a voltage different to the suitable one, investment of polarity in the power supply, neither due reclamations to deterioration in the external aspect for the normal use, neither to the quantity or condition of the accessories.

The confirmation of the accessories is the acquirer responsibility in the moment of the purchase of the equipment.

The warranty doesn't cover the rechargeable batteries neither although these are part of the acquired equipment since they are considered fungible material; its possible deterioration should be communicated in a maximum term of **15** counted **DAYS** starting from the date of purchase of the equipment.

The warranty will be annulled in the following suppositions:

1.- Equipment that have been manipulated by third people or for personal unaware to the Technical Authorized Service.

2.- Equipment and accessories in those that the serial number has been modified, erased or show up illegible.

3.- I use of the equipment different to which is dedicated.

To make use of the warranty it is necessary to surrender in the establishment sales or in some of the Technical Authorized Services the equipment damaged together with their accessories and the following documentation:

1.- Properly executed and sealed warranty certificate.

2.- Original ticket in the one that is identified the apparatus and the purchase date clearly.

3.- Description of the damage or opposing defects.

The contained warranty terms presently in this Warranty Certificate doesn't exclude, they modify or they restrict the right that legally has the acquirer for application of the effective Laws in the moment of the purchase, but rather they are added to the same ones.